



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,978	08/29/2003	Gin-Der Wu	ALIP0022USA	1977
27765 7590 02/22/2007 NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116			EXAMINER SHAH, PARAS D	
			ART UNIT	PAPER NUMBER
			2609	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	02/22/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 02/22/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

winstonhsu@naipo.com

B/K

Office Action Summary	Application No. 10/604,978	Applicant(s) WU, GIN-DER	
	Examiner Paras Shah	Art Unit 2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/29/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to the application filed on 8/29/2003.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

3. The disclosure is objected to because of the following informalities:

"synthesizerhave" on page 2, line 5.

Appropriate correction is required.

4. The disclosure is objected to because of the following informalities: "thendelayed" on page 2, line 16.

Appropriate correction is required.

5. The disclosure is objected to because of the following informalities: "betoolarge" on page 5, line 1.

Appropriate correction is required.

6. The disclosure is objected to because of the following informalities:

"furtherdiscloses" on page 6, line 5.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 1 recites the limitation "the previous time period" in line 4. There is insufficient antecedent basis for this limitation in the claim.

10. Claim 3 recites the limitation " the previous time period " in line 6. There is insufficient antecedent basis for this limitation in the claim.

11. Claims 2 and 4-5 are rejected as being indefinite as being based upon an indefinite independent claim.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

Art Unit: 2609

3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
14. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Connell (US 5,331,111).

As to claim 1, O'Connell discloses a method for generating output sound data for a time period comprising: mixing input sound data (see Figure 13, element 145) with input sound data in the previous time period (see Figure 13, element 147) (e.g. It is apparent that the input of signal 145 will be delayed upon passing the delay element), and with output sound data in the previous time period (see Figure 13, element 147) (The previous time period is accessed as the signal when added with the input undergoes a delay, which causes a data sample in the past to be used) in order to generate output sound data (see Figure 13, element 146). However, O'Connell does not specifically state the input sound and output sound data being of a predetermined time period. It would be obvious to one of ordinary skilled in the art to have chosen a desired time range for generating output data given input data and previous output data samples. The motivation to include such a feature causes the user to choose, which time should the user want to generate output for.

As to claim 2, O'Connell discloses a sound synthesizer (see col. 71, line 2) to generate output sound data (see Abstract) for a specific time.

As to claim 3, O'Connell discloses a sound synthesizer comprising: an input port (see Col. 21. line 36) for inputting sound data (see Col. 21. line 37) (e.g. audio); an output port (see Col. 21. line 37) for outputting sound data; and a logic unit for mixing

input sound data from the input port with input sound data in the previous time period from the input port and output sound data in previous time period from the output port, in order to generate the output sound data in specific period (see Figure 13) (e.g. The applicant refers to the logic unit as being consisted of a block diagram. The reference shows a block diagram for echo). However, O'Connell does not specifically state the input sound and output sound data being of a predetermined time period. It would be obvious to one of ordinary skill in the art to have chosen a desired time range for generating output data given input data and previous output data samples. The motivation to include such a feature causes the user to choose, which time should the user want to generate output for.

As to claim 4, O'Connell discloses a logic unit comprising: a first delay element for delaying (see Figure 13, element 147) the input sound data from the input port (see Col. 21, line 36); a first mixer (see Figure 13, element 151) (e.g. Applicant refers to mixer as an adder) for mixing the input sound data from the input port and an input signal generated by delaying an output signal (see Figure 13, signal entering element 151 from feedback loop) (e.g. The Applicant defines the output signal resulting from the feedback loop as is apparent in Fig. 4 of Applicant's disclosure) from the first mixer; a second delay element (see Figure 13, element 147) for delaying the output signal from the first mixer (e.g. It is seen from the block diagram of the reference that the delay acts as double delay, where the input signal is delayed and the output signal is delayed upon leaving the mixer; and a second mixer (see Figure 13, element 148) (e.g. The output

signal is added with input signal to create the sound data) for mixing the output signal from the first mixer with the sound data delayed by the first delay element.

As to claim 5, O'Connell discloses a memory (see col. 4, line 54), where in the logic unit comprises program code stored in memory (see Abstract) (e.g. The reference talks of a sound generating system that is implemented in a computer program. It is inherent that the computer program is saved into memory.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The US 5,005,204 recites a digital sound synthesizer. The US 5,917,917 RE39,189 and US PGPub 2006/0233387 recites a design to simulate ambiance and reverberations.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paras Shah whose telephone number is (571)270-1650. The examiner can normally be reached on MON.-FRI. 7:30a.m.-5:00p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xiao Wu can be reached on (571)272-7761. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2609

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

P.S.

1/22/07


XIAO WU
SUPERVISORY PATENT EXAMINER